# STATE SLD IDENTIFICATION POLICIES AND PRACTICES

*Daniel J. Reschly and John L. Hosp*

*Abstract.* Specific learning disabilities (SLD) conceptual definitions and classification criteria were examined through a survey of state education agency (SEA) SLD contact persons in an effort to update information last published in 1996. Most prior trends continued over the last decade. Results showed that SEA SLD classification criteria continue to be dominated by three features, severe discrepancy between intellectual ability and achievement, specified achievement areas, and exclusion factors. Significant variability between states also continues to exist in SLD prevalence, conceptual definitions, and classification criteria. SLD diagnostic decisions depend heavily on SEA classification criteria, producing potential changes in the eligibility of children for special education depending on their state of residence. Dissatisfaction with current SLD criteria is discussed along with likely future trends.

*DANIEL J. RESCHLY, Ph.D., is professor, Vanderbilt University.*
*JOHN L. HOSP, Ph.D., is assistant professor, University of Utah.*

Specific learning disability (SLD) is diagnosed by multidisciplinary teams in local education agencies (LEA) or by private practitioners in clinics, who generally apply conceptual definitions and classification criteria adopted by state education agencies (SEA). While the federal regulations regarding the SLD definition and classification criteria *influence* state definitions and criteria, states exercise significant discretion in the special education disability nomenclature, definitions, and classification criteria. In this article we present updated information on state SLD policies and practices followed by a discussion of trends and implications.

The potential importance of state variations in SLD definitions and classification criteria was recognized early in the implementation of the Education of the Handicapped Act (EHA) (1975, 1977), and later in the Individuals with Disabilities Education Act (IDEA)

(1997, 1999). The first published survey of SEA SLD requirements in 1976 reported the results of a 1974 survey of SEAs (Mercer, Forgnone, & Wolking, 1976). Subsequent surveys were conducted by this group in 1983, 1988, and 1994 (Mercer, Hughes, & Mercer, 1985; Mercer, King-Sears, & Mercer, 1990; Mercer, Jordan, Allsopp, & Mercer, 1996) and by Frankenberger and Harper (1987). No further followup survey has appeared in the literature for nearly 10 years.

SEA nomenclature, conceptual definitions, and classification criteria are powerful explicit statements about which children are most in need and worthy of the additional protections and resources associated with special education programs. More restrictive criteria suggest limitation of numbers of children, less restrictive the opposite. The nature of the criteria used also influences which children will be eligible. For example, the method used to determine the "severe

discrepancy" in most SEA SLD classification criteria (Mercer et al., 1996) has an influence on the ability levels of children eligible for SLD. Standard-score difference methods without correction for regression effects enhance the likelihood of making eligible more high-IQ children, whereas regression prediction methods have the opposite effect (Braden, 1987; Cone & Wilson, 1981; Fletcher et al., 1989; Reynolds, 1985; Warner, Dede, Garvan, & Conway, 2002).

### Trends in SLD Identification

Several trends were apparent in the prior SEA surveys of SLD requirements. First, the states have gradually moved toward adoption of the federal nomenclature and conceptual definition of SLD (Mercer et al., 1996). Conceptual definitions of disabilities describe the condition by specifying the key domains and the underlying behavioral dimensions involved. The federal conceptual definitions that have appeared since 1975 (EHA, 1975, 1977) are slight variations of the 1968 National Advisory Council on Handicapped Children definition (United States Department of Education [USDE], 1968), which in turn closely followed Kirk's 1973 conception of SLD (cited in Kirk, 1976) as a disorder in basic psychological processes related to learning. Continuation of this trend was expected in the most recent survey because little discussion over the last decade has been devoted to changing the SLD nomenclature and definition.

Classification criteria specify the requirements that must be met to establish that an individual qualifies for a particular diagnosis such as SLD. The federal EHA/IDEA regulations at 34 C.F.R. 300.540-543 provide general guidance to SEAs and LEAs about determining the eligibility of individuals for SLD. Although specific measures and cut-off scores are not provided, the regulations require severe discrepancy between intellectual ability and achievement in one of seven areas of achievement, not due to other disabilities or conditions. Over the last 25 years, the ability-achievement discrepancy has gained prominence in SEA SLD requirements, with increasing numbers of states specifying discrepancy determination methods and criteria for establishing whether a discrepancy is severe (Mercer et al., 1996).

Although the discrepancy criteria have been severely criticized in recent years (Fletcher, 1998; Fletcher et al., 1998, 2002; Stage, Abbott, & Jenkins, 2003; Steubing et al., 2002), the trend toward more precise specification of the ability-achievement discrepancy determination methods and criteria was expected to continue (see Discussion). Critical issues related to the use of the discrepancy method and criteria include (a) consistency of decisions across different pairs of tests, (b) stability of decisions over short time periods, (c) validity of decisions that allocate resources differently for IQ-discrepant and IQ-nondiscrepant poor readers, and, most important, (d) delay of intense treatment for 2-4 years after patterns of poor achievement first emerge. Despite the emergence of these issues in the 1990s, it is not likely that changes in SEA SLD discrepancy requirements will have occurred by 2004.

The inconsistency between the federal SLD conceptual definition and classification criteria should not be ignored. The conceptual definition focuses on underlying psychological processes, whereas the classification criteria emphasize what might be called unexplained low achievement based on expectations established from estimations of ability. This inconsistency emerged in the mid-1970s because a federal law already included a conceptual definition that no one apparently wanted to change. Also, contemporaneously, research results indicated (a) grave problems with the reliability and validity of profile patterns on perceptual and cognitive process measures, (b) largely negative evidence on the value of attempting to overcome process weaknesses, and (c) no confirmation of the value of using processing strengths and weaknesses to specify teaching methodology. Research over the last 25 years has failed to overcome these fundamental problems with the use of cognitive or perceptual processing deficits as the basis of SLD identification or treatment.

A likely future trend is movement toward greater consistency in conceptual definition and classification criteria similar to what occurred in mental retardation in the 1950s and 1960s (Reschly, 1992). A significant trend toward greater consistency in SEA definitions and criteria is unlikely to have emerged by 2004 when our survey information was last updated. Based on these research trends, our expectation was that the prominence of processing disorders in classification criteria would continue to decline. In the last survey of SEA SLD requirements, processing requirements in LD classification criteria were relatively rare (Mercer et al., 1996).

**Summary.** Prior studies of SEA SLD classification criteria revealed significant variability across the states (Mercer et al., 1976, 1985, 1990, 1996). Indeed, the same child could be identified validly as SLD in one state, but not in another that had different requirements. Significant variation existed in all features of SLD classification criteria, including intellectual ability requirements, achievement areas that might be discrepant from ability, exclusion factors, and discrepancy requirements.

The wide state discretion allowed in the disability categories, definitions, and classification criteria in

OSEP's (Office of Special Education Programs) monitoring of states' implementation of EHA/IDEA can perhaps be tied to the strong traditions in this nation of state and local control of education. Thus, state and local control appeared early in the discussion of federal SLD classification criteria with some commentaries suggesting a violation of states' rights in the relatively imprecise regulations formulated in 1977 ("Procedures for Evaluating," 1977).

A survey of SEA requirements for SLD was needed to update the knowledge base regarding current SLD requirements and trends in definition and classification criteria. Mercer (personal communication, December, 2001) indicated that he and his group did not anticipate conducting another survey of SEAs. This meant that SEA requirements for SLD had not been examined carefully since the 1994 survey (Mercer et al., 1996).

The timing of the present study was ideal because the United States appears to be nearing the end of one era of SLD classification criteria dominated by ability-achievement discrepancy determination and about to enter a new era in which response-to-intervention will be dominant (Bradley, Danielson, & Hallahan, 2002) (see Discussion). Results from nearly 10 years ago were used to establish trends and to design the current survey. The methodology, measures, and analyses are described in the next section.

## METHODOLOGY

Copies of prior surveys of SEA SLD requirements were collected and analyzed. Items were developed that ensured replication of prior survey content so that comparable information was generated on key variables, permitting discernment of trends. Thus, following prior surveys, particularly those by Mercer and colleagues (Mercer et al., 1976, 1985, 1990, 1996), the items were organized around SLD definition, classification criteria, intellectual requirements, achievement requirements, discrepancy determination method and criteria, psychological processing requirements, and exclusion factors. SEA policies toward cross- or noncategorical classification, teacher certification, and programming were also studied, along with requests for information on recent or anticipated changes in SLD.

Draft versions of the survey instrument were reviewed by the principal National Research Center on Learning Disabilities (NRCLD; www.nrcld.org) investigators and by the members of an NRCLD national advisory board. Revisions were made, and the survey submitted for a second round of review with further changes negotiated with the reviewers. The final version was submitted for a third and final review, which resulted in minor changes in wording and punctuation.

To minimize the demands on SEA personnel, graduate research assistants under the direction of the senior author consulted each SEA website for information that would answer as many of the survey items as possible. Once the surveys were completed to the fullest extent possible using website information, letters were sent to all SEA directors of special education requesting that they identify the SLD consultant for their state or the person called upon most often to provide authoritative answers to questions about SLD issues. Finally, the survey was distributed to the SEA designees in May 2002. Follow-up contacts were made if information was not returned within 30 days. The senior author's phone numbers and e-mail address were provided, and participants were encouraged to call or send messages about questions.

Subsequent to several followup reminders by mail and phone, data from all states were received by October 2002. The data were coded for each state and the coded results for each state were submitted to the state contact person for final review and confirmation; this step was completed in January 2003. All results were sent again to state contact persons in early 2004 to seek information on recent changes or further corrections to our results. This information was incorporated into the data analyses. By means of this process, results are believed to accurate and complete through March 2004.

Conventional descriptive analyses of survey information were conducted regarding all variables, and comparisons to prior surveys were made where feasible.

## RESULTS

In the following, the results are organized around the key components of SEA SLD identification requirements with particular emphasis on conceptual definitions and classification criteria. Variations in these critical areas may account for some or all of the differences among states in SLD prevalence as well as the inconsistency in diagnostic decisions about individual children across state lines.

### SLD Prevalence

Information about SLD prevalence across the states is provided in the first row of Table 1. The data are based on the 2001-2002 SLD child count for children age 6-17 as a percentage of estimated public school enrollment from Table AA 13 (www.ideadata.org). As illustrated, state prevalence of SLD varied from a low of 2.85% in Kentucky to a high of 9.43% in Rhode Island, differing by a factor of three times. The mean prevalence was 5.74%, $SD$ = 1.19. The large difference between the highest and lowest SLD prevalence states is somewhat misleading because of five states that are clear outliers. The states of Kentucky and Georgia

(3.29%) are outliers at the low end and Rhode Island, New Mexico (8.30%), and Massachusetts (7.93%) at the high end. Absent these five states, less, though still significant, prevalence variations exist across the states.

## SLD Definition

The term SLD is used for the category in 42 of the states. Seven states use learning disabilities (LD) (CT, DE, IN, IA, NY, TX, WY), and one state (CO) uses a unique term, perceptual and communicative disability. Colorado's definition uses the National Joint Committee on Learning Disabilities (NJCLD) definition (Hammill, 1990). In other documents published by the Colorado SEA, the LD term appears frequently. Compared to prior surveys, the nomenclature referring to SLD is significantly more standardized.

All states provide a definition of SLD (see Table 1). The clear trend over the past 10 years has been toward more widespread adoption of the SLD definition that appears in federal regulations at 34 C.F.R. 7. Thus, as indicated in Table 1, over two-thirds of the states use the federal definition. Seven additional states use the federal definition with slight variations. Only 9 states, compared to 15 in 1994, use an SLD definition that is different from the federal definition. Most states define SLD as,

> (i) *General.* The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.
>
> (ii) *Disorders not included.* The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage. (34 CFR 300.7[c][10])

Analysis of the SLD definitions in the nine alternative-definition states reveals that nearly all are similar to the federal definition in that eight include a psychological processing component and most include language processing as well. Only one state (WV) has a definition that varies from the general pattern of emphasizing processing factors. This state has adopted an abridged version of the "consensus" definition developed by the NJCLD (Hammill, 1990). Other states have developed definitions that combine features of the federal and NJCLD definitions or have added to the federal definition phrases such as "significant discrepancy between intellectual ability and achievement."

## Classification Criteria

Unlike the other 13 disabilities in the federal code, special classification criteria for SLD were established in the original EHA regulations and have continued with little change since 1977 (34 C.F.R. 300.540-543). The crucial features of these regulations are as follows: (a) severe discrepancy between achievement and intellectual ability in one or more of the following areas: oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematics calculation, mathematics reasoning; and (b) exclusion factors, meaning that SLD cannot be due primarily to visual, hearing, or motor impairment, mental retardation (MR), emotional disturbance (ED), or environmental, cultural, or economic disadvantage.

***Intellectual component.*** The requirement of normal (perhaps defined as an IQ above 80) or average (perhaps an IQ range of 90-110) is included in the SLD views of many scholars (e.g., Kavale, 2002). The prior trend was toward fewer states making explicit statements about the intellectual ability other than to specify that SLD cannot be due primarily to mental retardation (Mercer et al., 1996). Currently, all states stipulate that SLD cannot be due primarily to MR with no further specification of normal or average ability.

***Processing deficits and neurological impairment.*** As noted previously, the federal definition that dominates the conceptual foundation of SLD emphasizes psychological process disorders as underlying learning disabilities. Processing disorders also appear in several of the definitions of states that use alternative definitions. In sharp contrast to the prominence of processing disorders in definitions, however, is the virtual absence of classification criteria regarding the establishment of a processing disorder in determination of SLD eligibility (see Table 1). Only 13 states, or about a quarter of the total, require determination of a processing disorder as part of eligibility determination. Moreover, little guidance is provided in these states regarding how to establish a processing deficit in terms of the domains that should be assessed, appropriate measures to be used, and criteria to determine if a particular score or pattern was sufficient for eligibility determination. Neurological impairment is included in the eligibility criteria in six states (AR, DE, MD, NY, OK, and VT), but again no guidance is provided to LEA personnel regarding domains, assessment, or eligibility criteria. In contrast, 17 states included establishment of a processing deficit as part of their classification criteria in 1994 (Mercer et al., 1996), suggesting a declining trend regarding the use of cognitive or perceptual processing disorders in eligibility determination.

*Achievement areas for eligibility determination.* Across the states, the inclusion of the following achievement domains in which a child might be eligible for the SLD diagnosis is unanimous: reading, mathematics, writing, oral expression, and listening comprehension. Slightly less agreement exists regarding subcategories within those broad domains. Nearly all states identify basic reading skills and reading comprehension separately as is the case with mathematics calculation. Math reasoning is identified specifically in about half of the states. A few states allow SLD classification if the only discrepant area is spelling (AZ, CO, NH, and NY), and one state appears to recognize officially nonverbal learning disabilities (NH).

*Exclusion criteria.* All states specify exclusion criteria in eight areas. SLD cannot be due primarily to visual impairment, hearing impairment, motor impairment, mental retardation, emotional disturbance, and environmental, cultural, and economic disadvantage. A handful of states specify additional exclusion factors such as autism (CA, MI, VT, and WI), emotional stress (LA and VT), difficulty adjusting to home or school (LA and VT), lack of motivation (LA and TN), and temporary crisis situation (LA, TN, and VT). In 1994 about 90% of states used the same basic eight exclusion criteria. Currently all states use the basic eight criteria.

*Discrepancy requirement.* The federal regulation requiring a severe discrepancy between intellectual ability and achievement appears in the SLD classification criteria for 48 of the 50 states. Only two states do not have the discrepancy requirement in their state rules (IA and LA). Although the state of Iowa describes two alternatives for LD identification, a traditional severe discrepancy method and a noncategorical problem-solving method that is applied SLD and other high-incidence disabilities, all LEAs in Iowa now use the latter method, according to the Iowa SEA director of special education (personal communication, Lana Michelson, October 15, 2003). The state of Louisiana requires significant standard-score discrepancies between academic areas rather than a severe discrepancy between intellectual ability and achievement. Clearly, discrepancy between intellectual ability and achievement is one of the most common and stable features of SLD classification criteria.

*Discrepancy determination method.* Discrepancy determination methods varied widely according to prior surveys of SEA SLD classification criteria (Mercer et al., 1996) (see Table 1). Today agreement is widespread in the literature on at least two points regarding discrepancy determination. That is, achievement must be lower than intellectual ability by a significant amount in order to avoid chance variations in determining that a difference is real, and the achievement

and ability scores must be expressed on a common standard-score scale (usually with $M = 100$ and $SD = 15$). Rejection of score scales with unequal units such as developmental scales (e.g., grade equivalents) is now nearly universal.

Beyond these basic areas of agreement, our results suggest widely varying SEA methods of determining if a discrepancy is real. Of the 48 states requiring an ability-achievement discrepancy, 31 SEAs provide guidance to LEAs regarding the specific method to calculate the difference between intellectual ability and achievement (see Table 1). The three most common methods are standard-score point differences, differences stated in terms of standard deviation ($SD$) units, and regression-prediction formulae.

Three states use standard-score point differences, GA = 20, NE = 20, and NC = 15. In these states students meet the intellectual ability-achievement discrepancy requirement if their IQ scores are above achievement scores in an academic domain specified by the SEA by an amount equal to or greater than the stated magnitude. Discrepancy requirements stated in $SD$ units are essentially the same as those stated in standard-score points. Using tests with a $SD = 15$, the common criteria of 1.0 $SD$, 1.5 $SD$, and 2.0 $SD$ translate readily into 15, 23, and 30 points, respectively. In the 10 SEAs that establish discrepancy criteria in terms of $SD$ units, the most common criterion is 1.5 $SD$, or about 23 points. The standard-score and $SD$ unit discrepancies do not account for regression effects in determining expectations for level of educational achievement and severe discrepancy determination. Such methods also mistakenly assume that discrepancy scores have $SD$s equal to 15 points. The discrepancy-score distributions have $SD$s lower than 15 points, perhaps creating unintended stringency in the $SD$ criteria.

The most common discrepancy determination method is some form of a regression-prediction formula. Eighteen states currently use this method, a slight increase over findings reported by Mercer et al. (1996). In most states, explicit formulae or tabled values are provided to LEA personnel. In two states (NJ and SC), statistical or regression prediction formulae are recommended but not required, and no SEA guidance is given on the required magnitude of the discrepancy. Some differences in the nature of the SLD population can be expected depending on whether regression effects are incorporated into or ignored in discrepancy determination (see later discussion).

Essentially no guidance is provided to LEAs in 17 of the 48 states in determination of intellectual ability-achievement discrepancies. In 11 states there is no statement of how the discrepancy is to be determined

**Table 1**
*Components of State Definitions and Criteria AL to KS*

| Components | AL | AK | AZ | AR | CA | CO | CT | DE | FL | GA | HI | ID | IL | IN | IA | KS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SLD 2001-2002 Prevalence** | 5.25 | 6.54 | 5.46 | 4.71 | 5.29 | 4.33 | 4.93 | 7.45 | 6.50 | 3.29 | 5.63 | 5.44 | 6.38 | 5.74 | 6.63 | 4.76 |
| **Definition** | | | | | | | | | | | | | | | | |
| 1977 only | | X | X | X | | | | X | | X | X | X | X | | X | X |
| 1977 - variation | | | | | X | | X | | | | | | | X | | |
| Different dn. | X | | | | | X | | | X | | | | | | | |
| Process disorder | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Language disor. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| **Classification Criteria** | | | | | | | | | | | | | | | | |
| Process(es) deficit(s) required | | | | X | X | X | | | | X | | X | | X | | |
| **Achievement Areas** | | | | | | | | | | | | | | | | |
| Basic reading | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | |
| Reading compre. | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | |
| Reading | | | X | | | | | | | | | | | | | X |
| Math calcul. | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X |
| Math reasoning | X | X | | X | X | | X | X | X | | X | X | X | X | X | |
| Mathematics | | | | | | X | | | | | | | | | | |
| Writing | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Oral expression | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X |
| Listening comp. | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X |

**Table 1**
*Continued AL to KS*

| Components | AL | AK | AZ | AR | CA | CO | CT | DE | FL | GA | HI | ID | IL | IN | IA | KS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Classification Criteria** | | | | | | | | | | | | | | | | |
| IQ-ach discrepancy required | X | X | X | X | X | X | X | X | X | X | X | X | X | X | NO | X |
| Standard scores | | | | | | | | | | X | | | | | NA | |
| SD units | | | | | X | | | | X | | X | | | | NA | |
| Regression-prediction formula | X | | | X | | X | X | X | | | | X | | | NA | |
| Not stated how operationalized | X | X | | | | | | | | | | | | NA | | |
| Professional judgment of the team | | | | | | | | | | | | | | | | |
| Team override allowed | | | | | X | X | X | | | X | X | X | X | X | X | X |
| Estimated magnitude of discrepancy ≥ | 16 | NS | NS | 25 | 23 | 25 | 18 | 18 | 19 | 20 | 23 | 15 | NS | NS | NA | NS |
| Changes since 1994 | X | | X | | | X | X | | | X | X | X | | | X | X |
| Changes anticipated | | X | X | | X | X | | | X | | X | X | | X | | |
| **Non- or Cross-Categorical** | | | | | | | | | | | | | | | | |
| Eligibility determination | | | | | | | | | | | X | | | X | | |
| Placement | | X | X | X | X | X | X | | | | X | | X | X | X | X |
| Training | | X | X | X | X | X | X | | | | X | | X | X | X | X |
| Approved licensure | | | X | | | X | X | | X | | X | X | X | X | X | |
| Rule replacement or rule waiver | X | | | X | X | X | | | | | | X | X | | | X |

**Table 1 continued**
*Components of State Definitions and Criteria KY to NC*

| Components | KY | LA | ME | MD | MA | MI | MN | MS | MO | MT | NE | NV | NH | NJ | NM | NY | NC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SLD 2001-2002 Prevalence Definition** | 2.85 | 4.57 | 5.98 | 4.85 | 7.93 | 5.21 | 4.31 | 5.22 | 6.86 | 6.02 | 5.25 | 6.13 | 6.07 | 7.73 | 8.30 | 6.45 | 5.24 |
| 1977 only | X | X | | X | X | | | | X | X | X | | | X | X | | |
| 1977 - variation | | | X | | | X | | X | | | | | X | | | X | |
| Different dn. | | | | | | | X | | | | | X | | | | | X |
| Process disorder | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Language disor. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | |
| **Classification Criteria** | | | | | | | | | | | | | | | | | |
| Process(es) deficit(s) required | | | | | | | X | | | | | | X | | | X | |
| **Achievement Areas** | | | | | | | | | | | | | | | | | |
| Basic reading | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Reading compre. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Reading | | | | | | | X | | | | | | X | | | | |
| Math calcul. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Math reasoning | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X |
| Mathematics | | | | | | | X | | | | | | X | | | | |
| Writing | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Oral expression | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Listening comp. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

**Table 1**
*Continued KY to NC*

| Components | KY | LA | ME | MD | MA | MI | MN | MS | MO | MT | NE | NV | NH | NJ | NM | NY | NC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Classification Criteria** | | | | | | | | | | | | | | | | | |
| IQ-ach discrepancy required | X | NO | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Standard scores | | NA | | | | | | | | | X | | | | | | X |
| SD units | | NA | | X | | | | X | X | | | | | | | | |
| Regression-prediction formula | X | NA | | | | | X | | | X | | X | | | | | |
| Not stated how operationalized | | NA | X | | X | X | | | | | | | X | | | | |
| Professional judgment of the team | | NA | | | | | | | | | | | | | X | X | |
| Team override allowed | | X | X | X | | | X | | X | X | | X | X | | | X | X |
| Estimated magnitude of discrepancy ≥ | 22 | NA | | 23 | | | 25 | 15 | 23 | 30 | 20 | 21 | | | | | 15 |
| Changes since 1994 | X | X | X | X | X | | X | | | X | | X | | X | X | X | X |
| Changes anticipated | | X | | | | X | | X | | | X | X | | | X | | |
| **Non- or Cross-Categorical** | | | | | | | | | | | | | | | | | |
| Eligibility determination | X | | | | | | X | | | | | | | | | | |
| Placement | X | X | X | X | | X | X | | | | | | | X | | | X |
| Training | X | X | X | X | | | | X | X | | | | X | X | | | X |
| Approved licensure | X | X | X | X | | | | | X | | | | | X | | | X |
| Rule replacement or rule waiver | | | X | | | X | X | | X | | | | | | | | |

**Table 1 continued**
*Components of State Definitions and Criteria ND to WY*

| Components | ND | OH | OK | OR | PA | RI | SC | SD | TN | TX | UT | VT | VA | WA | WV | WI | WY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SLD 2001-2002** Prevalence | 4.72 | 4.45 | 6.84 | 5.86 | 6.57 | 9.43 | 6.34 | 5.54 | 5.45 | 5.83 | 5.52 | 4.39 | 6.36 | 4.80 | 6.19 | 5.59 | 6.02 |
| **Definition** | | | | | | | | | | | | | | | | | |
| 1977 only | X | X | X | X | X | X | X | X | X | X | X |  | X | X |  |  | X |
| 1977 - variation | | | | | | | | | | | | | | | | | |
| Different dn. | | | | | | | X | | | | | X | | | X | X | |
| Process disorder | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  | X | X |
| Language disor. | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |  | X |
| **Classification Criteria** | | | | | | | | | | | | | | | | | |
| Process(es) deficit(s) required | | | | | | | | | X | | | X | | | | X | |
| **Achievement Areas** | | | | | | | | | | | | | | | | | |
| Basic reading | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Reading compre. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Reading | | | | | | | X | | | | | X | | | | | |
| Math calcul. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Math reasoning | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Mathematics | | | | | | | | | | | | | | | | | |
| Writing | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Oral expression | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Listening comp. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

**Table 1**
*Continued ND to WY*

| Components | ND | OH | OK | OR | PA | RI | SC | SD | TN | TX | UT | VT | VA | WA | WV | WI | WY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Classification Criteria** | | | | | | | | | | | | | | | | | |
| IQ-ach discrepancy required | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Standard scores | | | | | | | | | | | | | | | | | |
| *SD* units | | | | | | | | X | | X | | X | | | | | |
| Regression-prediction formula | | | X | | | X | X | | X | X | X | | | X | X | X | X |
| Not stated how operationalized | | | | X | X | | | | | | | | X | | | | |
| Professional judgment of the team | | X | | | | | | | | | | | | | | | |
| Team override allowed | X | | X | | | X | | X | X | X | X | X | X | X | X | X | X |
| Estimated magnitude of discrepancy ≥ | | | | | | | | 23 | 17 | 15 | 17 | 23 | 18 | 18 | 25 | 19 | 23 |
| Changes since 1994 | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | |
| Changes anticipated | | | | X | | X | X | | X | X | | X | | | | | |
| **Non- or Cross-Categorical** | | | | | | | | | | | | | | | | | |
| Eligibility determination | | | | | | | | X | X | X | | | X | X | X | | |
| Placement | | X | X | | X | X | X | | X | X | | | X | X | | X | X |
| Training | | X | X | | X | X | X | | X | X | | | | X | | X | X |
| Approved licensure | | X | X | | X | X | X | | X | X | X | | | | | X | X |
| Rule replacement or rule waiver | | X | | | | | | X | | | | | | X | | | X |

or the guidance cannot be operationalized readily. An example of the latter is New York, where LEA personnel are told that a child with SLD shall exhibit "a discrepancy of 50% or more between expected achievement and actual achievement determined on an individual basis." No further SEA guidance is provided in the state. In three states the determination method is explicitly delegated to the professional judgment of the team with no further SEA guidance.

*Magnitude of the discrepancy.* We further analyzed SEA requirements regarding the magnitude of the discrepancy required in order to meet the criterion of "severe." These estimations were straightforward for the states that used simple standard-score or *SD* unit methods. It was impossible to obtain information on the myriad regression methods used in the states that vary on estimations of the reliabilities of tests, correlations between measures of ability and achievement, and the size of the difference required between regressed IQ scores on achievement. We were able to establish approximate estimations by determining the discrepancy required with typical achievement tests assuming an IQ = 100, a score that requires no adjustment for regression effects. We emphasize that these are estimations, but we attempted to verify them with appropriate SEA personnel.

With these limitations stated, it first is noteworthy that 28 of 48 SEAs with discrepancy requirements clearly expect that all LEAs in the state will implement the same numerical criteria to determine if a discrepancy is "severe." The size of the required discrepancy varies by a magnitude of 2 times, from 15 points (ID, MS, NC, and TX) to 25 (AR, CO, WV, MN, and 30 in MT). The most common criterion for a student with an IQ = 100 is about 20 points, or an achievement standard score of <80. The mean, median, and *SD* for the required magnitude discrepancies in the 28 SEAs were 20.6, 20.0, and 3.9, respectively.

*Team override.* The next characteristic of SEA SLD discrepancy determination methods and criteria to consider was whether team override was allowed (see Table 1). Team override grants discretion to the multidisciplinary team to classify students with SLD even though they do not meet one or more of the established eligibility criteria. Team override appears to be used with some frequency across the United States (MacMillan & Siperstein, 2002). Depending on LEA practices, team override is a potentially significant influence in LD identification. A significant number (33 of 50, 66%) of SEAs explicitly permit discretion by multidisciplinary teams in rejecting the findings of the evaluation in determining SLD classification. Unfortunately, we did not seek information from SEA personnel on the frequency with which this provision was used in SLD identification.

### Cross- or Noncategorical Provisions

In view of the many recommendations regarding changes in disability classification over the last 30 years (Donovan & Cross, 2002; Hobbs, 1975a, 1975b; "A New Era…," 2002; Reschly, Tilly, & Grimes, 1999), information was collected on whether the state allowed noncategorical or cross-categorical approaches in eligibility determination, placement, training, and licensure. Only a few states (20%) allow non- or cross-categorical identification of students with disabilities. Disability identification continues to be categorical in the vast majority of states. Cross- or non-categorical approaches are most often permitted in the approval of college and university teacher training programs (*N* = 30 states), placement of students in special education programs (*N* = 28), and in the licensure of teachers (*N* = 26). When allowed, non- or cross-categorical arrangements most often involve the high-incidence disabilities of SLD, ED, and mild MR. In addition to beliefs that children with high-incidence disabilities have similar needs, the cross- or non-categorical provisions are likely driven by the need to (a) give local schools more flexibility in hiring teachers and placement of students, and (b) the absence of evidence indicating unique teaching methodologies associated with different categories of high-incidence disabilities.

### Rule Replacement or Rule Waiver

The use of rule replacements or waivers was advocated by Reynolds, Wang, and Walberg (1987) as a means to develop innovative practices under controlled conditions coupled with rigorous evaluation of effects. This approach was used in several states to establish problem-solving requirements and alternative child disability identification procedures (Barbour, 2002; Reschly et al., 1999; Tilly, Reschly, & Grimes, 1999). Slightly more than one quarter of all states permit LEAs to petition the state for rule replacement or rule waivers. The provisions under which these rule replacement waivers are provided vary considerably by the states. Such provisions have been used in several states (e.g., IA, IL, SC) to design, implement, and evaluate alternatives to traditional SLD identification procedures.

### SEA Changes in SLD Requirements

Interesting, most SEAs reported changes in some aspect of their SLD conceptual definition or classification criteria since 1994 (*N* = 34), and 40% of SEA contact persons anticipated changes in the near future. The latter percentage will likely increase significantly if presently contemplated changes in SLD federal regulations are implemented. Clearly, SLD conceptual definitions and classification criteria are in a period of change, necessitating careful monitoring in order to accurately characterize current SEA requirements.

*Summary*

   Several major trends identified by Mercer et al. (1976, 1985, 1990, 1996) were found to continue prominently in the current SEA SLD identification requirements. Nomenclature and conceptual definitions continue to move toward the federal definition. Classification criteria continue to focus on three broad domains (specified areas of achievement, severe discrepancy, and exclusion conditions). Although enormous variability continues across SEAs, change is apparent toward use of more statistically sound methods to determine the severe discrepancy component. Despite this trend, many states, about 40%, provide little guidance to LEA personnel on determining severe discrepancy. Finally, the most salient feature of SEA SLD requirements is variability, particularly in whether LEA personnel are given mathematical guidance on the calculation and required magnitude of the severe discrepancy. These SEA variations have significant implications for how the SLD diagnostic construct operates in U.S. schools and clinics.

## DISCUSSION

   Enormous variability in SEA SLD requirements produces significant differences in what SLD means, depending on the location of the child's residence. Thus, a child with a 20-point discrepancy between intellectual ability and achievement might be eligible for SLD in some states, but not in others. The SEA variations and future trends are discussed in this section.

### Factors Related to Variability

   *Team override.* If the child fails to meet the SEA criterion, s/he might still be classified as SLD depending on whether the SEA allows team override. The variables that determine whether multidisciplinary teams override eligibility criteria have not been studied and deserve more attention. Anecdotally, these variables appear to be perceived degree of need and assumed benefit of special education. Pressure from general and special educators also may contribute significantly. The fact that many teams exercise this override seems to be substantiated by results indicating that a significant number of children classified as SLD do not meet SEA eligibility requirements (e.g., Bocian, Beebe, MacMillan, & Gresham, 1999; Gottlieb, Alter, Gottlieb, & Wishner, 1994; MacMillan, Gresham, & Bocian, 1998).

   *Team resistance.* Beyond SEA variability in SLD criteria, further variability is introduced into the system by LEA personnel who do not apply state criteria. National studies of this phenomenon do not exist. However, first-hand experience in several states suggests that LEA personnel frequently ignore SEA requirements.

   *Team manipulation of the process.* Another questionable practice involves manipulating the assessment process to produce certain results through selection of, for example, IQ tests that have old or lenient norms (Flynn, 2000) and achievement tests that typically yield low scores. Such manipulations have the effect of making more likely the findings of severe discrepancy and SLD eligibility. Most assessment personnel know which tests are more or less likely to have these characteristics.

   Other ploys have been reported. One is to shop for tests or individual scores that can be used to meet the discrepancy requirements. Each of us has encountered cases as part of our routine work involving administration of two or three different tests of intellectual ability and as many as five or six achievement tests to the same individual. One pair of scores meets the eligibility requirement, and as many as 25 other combinations of scores not meeting the discrepancy requirement are ignored.

   Moreover, we have occasionally encountered cases in which the teacher's referral was for reading difficulties. The only qualifying score across several tests was in mathematics and the child is declared eligible for SLD in math, but given an IEP that emphasizes reading. Such practices undermine the integrity and intent of SEA requirements.

   *LEA achievement differences.* A more naturally occurring source of SLD variation is population variation between and within states. Peterson and Shinn (2002) documented the relative nature of SLD, illustrated by the average performance of students across two LEAs within the same state. Similarly, Gottlieb et al. (1994) reported that the average achievement level for students identified as having SLD in a suburban district was equal to the average achievement level of all students in an adjacent urban district. Many suburban children with SLD in high-achieving LEAs are unlikely to be perceived as below-average achievers and referred if situated in an urban district. These differences suggest that SLD is to some extent dependent on local factors that cannot be adequately accounted for in federal or SEA regulations.

   *Discrepancy method.* The discrepancy method adopted by the SEA also influences whether a specific child is eligible for SLD. Children with identical characteristics in states with the same required discrepancy magnitude will be eligible or ineligible for SLD depending on whether the state adopts a regression-corrected method of discrepancy determination. For example, more children with IQs <100 will be SLD-eligible if a regression method is used. Simple standard-score or *SD* unit score differences without correction for regression will have the opposite effect.

A question to consider is what happens to a child with a 20-point discrepancy between intellectual ability and academic achievement in basic reading skills (or one of the other areas specified by the SEA). Assume that none of the exclusion factors applies and the child's ability is above the MR cut-off score specified by the SEA. Whether this hypothetical child is eligible for SLD also depends on whether the SEA method for discrepancy determination takes into account the phenomenon of regression to the mean.

Will a 20-point discrepancy between IQ and achievement be sufficient? It depends on the child's IQ level and the method of discrepancy determination. If the state uses a regression procedure, generally regarded as the most psychometrically sound approach, a different decision is made about a 20-point discrepancy depending on whether the IQ is 115 or 85. For example, in Tennessee, the expected achievement score for an IQ = 115 is 111, assuming a correlation of .6 between the IQ and achievement measures, according to a table provided to LEA personnel. With this correlation, an 18-point discrepancy from the expected achievement score is required in Tennessee. In this hypothetical example, the student's achievement score has to be <93, or 22 points below the obtained IQ, to meet the SLD severe discrepancy requirement.

A comparable child in Tennessee with an IQ of 85, making the same assumptions, has an expected achievement of 91 and is eligible with an achievement score that is 18 points below the expected achievement level, i.e., ″ 73. The regression correction results in a 22-point discrepancy requirement for a child with an IQ of 115, but only 12 points for a child with an IQ of 85. In a statistical sense both students are treated equally since the different criteria result in requiring the same discrepancy *below* the expected level of achievement.

In contrast, states with a simple standard score or *SD* unit discrepancy criterion without correction for regression would not consider the *expected* level of achievement. Rather, a simple point amount would be applied such as 15 or 20 points. Our hypothetical child's status would change. Whereas the child with an IQ of 85 is less likely to be eligible when regression is ignored, the child with the IQ of 115 is more likely to be eligible. For many LEA special education personnel, the regression method seems to favor those with lower IQs and disadvantage those with IQs above 100 (assuming that SLD eligibility is a benefit). Which is a better choice, certifying as eligible more children with IQs <90 or more with IQs >110? The answer depends on a set of values about who should be eligible for scarce resources and whether SEA and LEA personnel believe that the more psychometrically sound method should be used. Thus, accounting for or ignoring regression has an effect on the population of students in SLD programs.

### LD Prevalence

The original purpose of the IQ-achievement discrepancy in the federal regulations was to provide guidance to states on SLD identification and to exercise control over SLD prevalence ("Assistance to States …," 1976; "Procedures for Evaluating …," 1977). The results of this survey along with the prevalence data (see www.ideadata.org) are consistent with the conclusion that neither goal was achieved. States continue to vary dramatically in SLD classification criteria. Thus, the federal SLD classification criteria have been marginally effective in providing effective guidance to states on appropriate SLD eligibility determination procedures.

The goal of control over prevalence also has not been achieved. Prevalence continues to vary significantly across the states for reasons that are not simply related to the stringency of the SLD IQ-achievement criteria or to other obvious features of SEA requirements. For example, Georgia and Nebraska require 20 points to meet the discrepancy requirement, but have vastly different LD prevalences of 3.29% and 5.28%, respectively. Further study of the variables that explain SLD prevalence are under way (Reschly & Hosp, in preparation), but previous attempts have not been particularly successful (Lester & Kelman, 1997). Prior SLD prevalence studies did not combine SEA classification criteria with demographic variables, however. Moreover, SLD prevalence varies dramatically across the states. Clearly, two children with the same test scores and learning needs could receive different SLD diagnoses depending on their state of residence. Although no data are reported here on within-state variations, other research has shown that SLD prevalence also varies across LEAs as a function of local district characteristics (Bocian et al., 1999; Gottlieb et al., 1994; MacMillan et al., 1998; Peterson & Shinn, 2002). Further study of LEA variations within states is under way at the NRCLD.

### Validity and Consequences of Current SEA SLD Requirements

Pressure to abandon the most common SLD classification criterion of a severe discrepancy between intellectual ability and achievement grew significantly during the 1990s and is now incorporated in several policy statements by authoritative groups (Bradley et al., 2002; Donovan & Cross, 2002; Learning Disabilities Roundtable, 2002; "A New Era …," 2002). The fundamental issues with the current severe discrepancy requirements are treatment validity and harmful consequences.

A longstanding program of research led by Reid Lyon at the National Institute for Child Health and Human

Development (NICHD) (Lyon, 1996; Lyon et al., 2001) established unequivocally the poor relationship between severe discrepancy and responses to reading interventions. In short, among children who are poor readers, those with higher IQs (IQ discrepant and SLD eligible) do not respond more readily to reading interventions than those with lower IQs (IQs similar to reading achievement and not SLD eligible). In fact, both groups, at least down to IQs of 80 or 85, respond similarly and positively to multi-component reading interventions (Fletcher et al., 1998; Snow, Burns, & Griffin, 1998).

Not only is the traditional severe discrepancy criterion invalid, research evidence suggests that it causes harm by delaying treatment to age 9 or 10, several years after the signs of significant achievement problems emerge. These iaterogenic effects of severe discrepancy work against prevention and early identification/early treatment of reading problems and exacerbate achievement gaps between students with and without disabilities (Fletcher, 1998; Fletcher et al., 1998, 2002).

### Future of SLD Identification

Changes in SLD classification criteria are essential in order to preserve and, in some cases, re-establish the credibility of the SLD diagnostic construct. Currently, the states vary so much in SLD requirements that little can be said unequivocally about students with SLD other than they have low achievement. LEA personnel often, and subtly, engage in what is termed legally as *nullification*; that is, systematically ignoring legal requirements due to some perceived higher good. Nullification inevitably leads to disrespect for and non-compliance with increasing numbers of legal requirements.

Multiple options have been proposed recently to replace the current SLD eligibility requirements. One set of options that has roots in Hobbs' (1975a, 1975b) *Issues in the Classification of Children* is adoption of non- or cross-categorical classification and programming systems for children with high-incidence disabilities, including SLD (Donovan & Cross, 2002; "A New Era ...," 2002; Reschly et al., 1999; Tilly et al., 1999). These options are currently being pursued in a few states. Less dramatic changes are likely in federal and most SEA SLD classification requirements. The more conservative approaches continue the diagnostic construct of SLD. In these approaches, consensus has emerged around two concepts, abandonment of severe discrepancy and adoption of response-to-treatment (Bradley et al., 2002), typically involving focused small-group interventions within general education (Vaughn & Linan-Thompson, & Hickman, 2003), often guided by problem solving.

Explicit language in the still pending IDEA reauthorization legislation would forbid SEAs from requiring severe discrepancy as part of SLD classification and encourage use of RTI approaches (see U.S. Senate, S 1248, Section 614, http://www.nasponline.org/index2. html and http://thomas.loc.gov/cgibin/query/F?c108: 2:./temp/~c10805Hhjv:e978787). RTI, when combined with problem solving, has the potential to improve the prevention of reading problems and at least some portion of the current SLD prevalence, while also encouraging the adoption of evidence-based practices in general and special education (Bradley et al., 2002; Gresham, 2002; Grimes, 2002). Significant continuing education needs exist regarding any of the changes contemplated thus far.

Other features in future SLD classification criteria are far less certain. One controversial aspect is the role of intellectual ability and perceptual or cognitive processing. Several constituencies have significant vested interests in the continuation of some form of cognitive assessment (e.g., Hale, Naglieri, Kauffman, & Kavale, 2004), although the fundamental fact remains that empirical relationships have not been established between assessment of perceptual or cognitive processes and improved accuracy in SLD identification, better control of SLD prevalence, and more effective instructional interventions for children with SLD. It is unfortunate if severe discrepancy is replaced by another equally controversial criterion without extensive validity studies, both evidential and consequential.

### Summary

SEA criteria for SLD eligibility determination are likely to change more in the next 10 years than the last 10 years in view of the widespread dissatisfaction with severe discrepancy as a key factor. Multiple policy statements and pending legislation are likely to produce significant SLD changes. Nearly all states currently require a severe discrepancy between intellectual ability and achievement along with low performance in specified areas of achievement and exclusion factors. The severe discrepancy part of those criteria likely will be replaced by different criteria, most likely some combination of new requirements involving RTI and as yet undetermined other factors such as problem solving or perceptual/cognitive processing. Monitoring SLD changes in SEA requirements will be essential to understanding how the SLD diagnostic construct evolves in the next decade.

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## NOTES